

ART. XXI. *Philosophie de l'Histoire Naturelle ou Phénomènes de l'Organisation des Animaux et des Végétaux.* Par J. J. VIREY, Docteur en Médecine de la Faculté de Paris, et Membre titulaire de l'Académie Royale de Médecine, &c. &c. In nova fert animus.—OVID. Paris, 1835. 8vo, pp. 512.

Philosophy of Natural History, or Phenomena of the Organization of Animals and Vegetables. By J. J. VIREY, Doctor of Medicine of the Faculty of Paris, &c. &c.

The author of the "Philosophy" has been long known as one of the most prolific writers of the times. An active and useful member of the *Société de Pharmacie* of Paris—busily engaged, too, in the exercise of his calling; he has yet found time and inclination to discuss voluminously, and at the same time, most fancifully, many interesting and intricate points of anthropology. Early in his career of authorship, he selected moral rather than physical man for the object of his investigations; but, of late, his inclinations appear to have led him more to the cultivation of the natural sciences. Seven and twenty years ago, he published a treatise in two volumes "On the Art of improving Man;"—in 1817, "Medico-philosophical Researches on the Nature and Faculties of Man," in one volume;—in 1820, a "Natural History of Medicines, Aliments, and Poisons," in one volume;—in 1822, a "History of the Manners and Instinct of Animals," in three volumes;—in 1823, a volume "on the Vital Power;"—in 1824, his "Natural History of Mankind," in three volumes;—in 1825, a second edition of his work on "Woman," in one volume;—in 1830, the second edition of his "Philosophical Hygiène;"—in 1833, the third edition of "Treatise on Pharmacy," in two volumes;—and, last y, the work before us. Besides these separate publications, the pages of the "*Nouveau Dictionnaire d'Histoire Naturelle*," of the "*Dictionnaire des Sciences Medicales*," and of many of the periodicals of the day, contain numerous evidences of the author's industry and zeal in the cultivation of his profession. Every thing that emanates from him indicates research, and almost all exhibit vivid, we might perhaps say, boundless imagination. The predominance, indeed, of the latter quality detracts largely from the value of most of his productions, and has acquired him the character, with some, of being the most fanciful of anthropological speculators.

The work before us is divided into four books; the first of which is entitled "General Physiology, or Principles of Organization, animal and vegetable;"—the second is on "the origin and formation of beings as regards their destruction;"—the third, on the "developements of organic forms and their functions;"—and the fourth on the "reproduction of beings, animal and vegetable."

In respect to the theory of the formation of living bodies, M. Virey is a decided *univocalist*. All philosophers are so, as regards the beings highest up in the scale; but many distinguished naturalists, amongst whom may be mentioned De Lamarck, Raspail, Treviranus, Burdach, Gruithuisen, and Wrisberg, conceive it probable that spontaneous or equivocal generation may occur in the lowest divisions of living bodies.

M. Virey, however, considers, that facts, gradually developed in the wonderful progress of the natural and anatomical sciences, are sufficient to annihilate "the monstrous hypothesis of the spontaneous life of matter, and the pretended formation of organized beings, by blind inorganic substances." p. 30.

His views on the difference between organized and inorganic bodies are singularly fantastic, and often by no means intelligible. Witness the following extract:

"Different progressive degrees of animation may be observed in organic substances. First a simple gelatinous liquid offers the first framework of all organization. Subsequently, an albuminous substance, susceptible of concretion, passes successively to the form of the more or less solid tissues. The fibre constitutes the more or less hard wood of vegetables, or the muscular flesh of animals. Lastly, the nervous pulp contains, during life, the most striking excitative faculties of the whole economy.

"These four principal elements, *gelatine, albumen, fibrine, and nervine*, enjoy properties more or less active, as contractility, which is the attribute (*apanage*) of the muscular fibre, and sensibility, with which the medulla of the nervous cords is endowed. The substance, composing the muscular fibre, and the neurilemma, (the membrane enveloping the nervous element,) are more soluble in acids than in alkalis. The nervine or pulp of the nerves is soluble in alkalis, and not in acids. The contained is thus found in a state opposite to that of the containing. The latter is the anelectric (*cohibant*) of the former: their reciprocal polarity is therefore contrary or inverse."

"Moreover, there is a great analogy in composition between the nervine and the seminal matter of animals. Both hold phosphorus in combination, a very energetic agent of stimulation on the other living parts, a principle eminently combustible, or the most opposed to the burnt (*carbure*) and heveral state." p. 43.

In its general character the work before us is liable to all the objections that apply to M. Virey's works in general. Perhaps, indeed, there is a greater admixture of obscure psychology, or what he would doubtless term "philosophy," in the present than in his preceding publications. Of this we have a signal example in what he calls his "Terminal Propositions," which conclude the text of the work, and embody, as it were, his leading principles of organization.

"1. Is the DIVINITY the *intellectual principle*, the *vital force* of the world, (in the universal encephalon,*) analogous to the nervous fluid, or to the celestial Ether?"

"2. Is NATURE like the general nervous apparatus, distributing to all parts of the spheres movement and life, for the organization and developement of animal and vegetable beings?"

"3. Are the MASSES, called INORGANIC and ANORGANIC, materials constituting the different bodies which compose the worlds, either in the permanent mineral and chemical condition, or in the transitory condition of organization, through the influence of the vivifying principle?"

"4. Do ORGANIZED BEINGS, in their individual and transitory existence, emanate as temporary productions from the great tree of life?"

"5. Is each of its different BRANCHES or STOCKS of SPECIES attached to a common trunk by paternal connexions, in their genera and families, according to the general law of life, reproduction, and destruction?"

"6. Do all ANIMATED SPECIES (without excepting the human race, terminal or regulating (*terminale ou regulatrice*), on our planet) undergo, like *their individuals*, the law of developement, increase, vigour, and multiplication, and afterwards of old age and death, to accomplish the orbit of transformations or modifications in accordance with those of the star that nourishes, and causes them to expand and fructify?"

"7. Do not all the organized beings of our world aspire by successive developement, and by a more and more complicated evolution, to rise progressively towards the pinnacle of perfection, in order to approach the organism of man? The vegetable, which is at first the most imperfect, tends to attain a higher rank from its birth and to its complete developement, as man from the primitive embryonic point (infusory animalcule?) runs through all the steps of the zoonomic

* "Sensorium universale, of Isaac Newton and of Samuel Clarke.

scale.* That which happens to each individual, from conception to complete development, takes place in the species constituting the parallel threads of the vegetable and animal kingdom."

"8. Are the *human race*, and the other *animal and vegetable species*, subordinated in their reciprocal harmonies, or dependent (*pondérées*) upon each other, according to their forms and instincts of life, whilst *minerals* are subjected to mechanical and chemical law? The latter can only obey physical necessities. The more other bodies enjoy of spontaneity in their mobility and sensibility, the farther extends the circle of their attributions. Lastly, the human race deploys over the inferior beings, and over its own race, providential acts of the creative power, of which it becomes the minister over this globe."

"9. Circumscribed within the limits of his organization, *civilized man* can only act with a liberty restricted within the sphere of his destinies, although one less restricted than that of the instincts of other animals. He pursues the course prescribed by the supreme Arbiter, without being able to overstep it—any more than every other creature, according to his constitution and intellectual rank in the general order of the universe?"

R. D.

ART. XXII. *A further inquiry concerning Constitutional Irritation, and the Pathology of the Nervous System.* By BENJAMIN TRAVERS, F. R. S. Senior Surgeon to St. Thomas's Hospital, &c. &c. &c. London, 1835. 8vo, pp. 444.

It will be remembered, that in the year 1826, Mr. Travers published a work upon constitutional irritation. The present essay is a continuation of the same subject. The former treatise has been so long before the profession, that students of the general pathology of external diseases, are, or should be familiar with its merits. The name and reputation of Mr. Travers will secure, for any of the labours of his pen, an attentive perusal, for the pathology of several injuries and local diseases, have been very successfully illustrated by him on former occasions. But we must be permitted to state, that theorizing upon an extended scale, or the philosophical analyzation of complex and multifiform questions does not appear to be the sort of this author. In the treatise before us, he objects almost in the commencement against the attempt to define with accuracy, such general terms as are used to designate the several temperaments, diatheses, &c.; things that Mr. Travers thinks that all can comprehend or recognise at sight, but which cannot be described. Now, these are precisely the classes of terms that most require definition, in all philosophical treatises—because they express the broadest, and therefore the most vague generalizations. Temperaments run into each other, and scarce ever exist in simplicity in any individual, and therefore, by Mr. Travers's rule, it is in vain to define them. Yet he does not object to the employment of the terms which designate the different temperaments! A distinguished French naturalist once declared that there existed no such things as species, yet he has described the types and representatives of numerous groups of individuals, under the title of species, to the infinite advantage of natural science. Nor is there any thing inconsistent in this procedure. There is an unbroken sheet of water between this place and London, and it is a great way to London!—but the extent of meaning attached by different persons to the phrase "a great way," and if we

* *Monstrosities* are *infra-formations*, but irregular, either totally or partially, and so of imperfections.